ORIGINAL ARTICLE

Patient satisfaction with care for genital herpes: insights from a global survey

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Sex Transm Infect 2004;**80**:192–197. doi: 10.1136/sti.2003.007922

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Accepted for publication 6 January 2004

Objective: To describe patient experiences and views regarding genital herpes management.
Methods: Between February 2002 and January 2003, subjects with genital herpes were recruited via the International Herpes Alliance website and through banners on additional sites. Surveys were available in English, French, Spanish, Italian, and German and assessed views on access to care, diagnosis, related emotional experiences, educational resources, counselling, pharmacotherapy, and satisfaction with care.
Results: 2075 patient responses from 78 countries were analysed. 49% reported their diagnosis was by culture (or other direct detection) and 9% by antibody test, while 34% reported they had been diagnosed by examination alone. 65% used a prescription antiviral therapy, 18% a topical antiviral therapy, and 17% an alternative therapy. Of 901 subjects who reported on frequency of antiviral use, only 30% reported a frequency consistent with a suppressive regimen while 59% of respondents said they would be likely to take daily therapy if it reduced the frequency of outbreaks. Patient satisfaction with management of physical symptoms was independently associated with duration of initial visit ⩾15 minutes (adjusted odds ratio (OR) = 4.52), receiving a prescription (adj OR = 2.34) and receipt of a brochure/fact sheet (adj OR = 2.14). Satisfaction with attention to emotional issues also correlated with the first two of these factors.
Conclusions: Genital herpes management may be improved by including the use of confirmatory laboratory testing, employing a full range of antiviral therapy options, providing educational materials, and committing more time to counselling at the initial visit.

Already one of the most prevalent sexually transmitted infections, genital herpes simplex virus type 2 (HSV-2) infection has increased in prevalence in many parts of the world.[1 2]

There are a number of strategies available for management. Antiviral therapy has been shown to reduce the duration of symptoms when used to treat first episode or recurrent episodes of genital herpes.[3–16] The same drugs can reduce the frequency of recurrences and of viral shedding as well as the risk of transmission to a partner when used daily as suppressive therapy.[17–26]

Condom use also reduces the risk of transmission and couples aware that one member is at risk have a lower rate of transmission of the disease.[27 28] Even the rare but dreaded complication of neonatal herpes may be prevented in some cases by attentive obstetric management or mitigated by early recognition and antiviral therapy for the infant.[29–31]

Such advances have been reflected in guidelines for diagnosis and treatment at national and international levels.[32–35] Yet, there is little information on whether the existence of guidelines is being translated into improved management for people living with genital herpes. This paper describes the International Herpes Management Forum/Novartis/International Herpes Alliance Genital Herpes Treatment Survey (INSIGHTS)—a survey of over 2000 people living with genital herpes designed to gain insight into contemporary management of this infection and the factors most associated with patient satisfaction.

METHODS

Data collection

Participants were recruited to a web based survey between 1 February 2002 and 7 January 2003. The survey entry was posted at the International Herpes Alliance website (where there are typically 21 000 visits per month) and was linked to other related healthcare websites. The surveys could be completed in English, French, German, Italian, or Spanish. Questions covered demographics and assessed views on access to care, diagnosis, related emotional experiences, educational resources, counselling, pharmacotherapy, and satisfaction with care.

Participants rated their satisfaction both with physician answers and attention to physical symptoms and treatment, as well as to the handling of their related social and emotional issues. This was accomplished using a five point scale ranging from very dissatisfied to very satisfied.

Data analysis

Data were directly input from the web responses into an Access (Microsoft Inc, Bellevue, WA, USA) database and then converted into SAS for PC (SAS Institute Inc, Cary, NC, USA). Before analysis, records were reviewed to identify duplicates caused by individuals hitting the ''submit'' button twice and to determine if responses clearly indicated a diagnosis of genital herpes. Denominators for non-demographic variables varied by question as determined by the proportion of respondents answering that question.

A multivariate approach was taken to factors associated with patient satisfaction. For purposes of analysis, the answers to satisfaction variables were collapsed into two levels—satisfied versus neutral/dissatisfied.

Contingency tables were used to assess bivariate relation between variables (for example, demographic variables, type of care provider, resources provided at diagnosis, time spent with provider) and the two satisfaction variables described above. Variables which were significant in bivariate analyses at the 0.05 level were placed in a backwards elimination logistic regression model for multivariate analysis. For the final analysis, a 0.05 significance level was chosen.

RESULTS

The initial data set consisted of 2176 records; 101 records were dropped from the analysis—34 were duplicates, three identified that the participant did not have genital herpes, and 64 records were blank except for demographics. The final sample was 2075.

Demographics

Table 1 summarises key demographic findings. The sample was 75% female and 61% were 34 years of age or younger. The majority of participants were from North America and the United Kingdom. Sixty six per cent were currently single, 16% were unmarried but cohabiting, and 18% were married. Fully 94% of the sample had graduated from high school (13 years of education) and 45% had at least one university or college degree.

Seventy five per cent of participants responded to a question about how long it had been since they had been diagnosed with genital herpes. Forty five per cent of respondents had been diagnosed for 3 years or more (21% for more than 10 years), 19% for 1–3 years, 7% for 6 months to 1 year, 13% for 1–6 months, and 16% for less than 1 month. One per cent (n = 25) of the sample reported a diagnosis of HIV/AIDS while 2% (n = 38) did not report their HIV/AIDS status.

Accessing care and initial diagnosis

Information on accessing care for initial diagnosis is given in table 2. Each associated question was answered by 75–76% of participants.

Table 1 Demographics

	No	% of sample
Sex*		
Female	1536	75
Male	510	25
Transsexual	5	0.24
Age group (years)†		
<25	472	23
25–34	779	38
>34	805	39
Geographical region‡		
United States	1315	65
United Kingdom	157	8
Canada	146	7
Western Europe	106	5
Australia	84	4
Scandinavia	46	2
Asia (minus west central Asia and the Middle East)	33	2
South America	30	1
Southern Europe	26	1
West central Asia and Middle East	23	1
Marital status§		
Single	1348	66
Cohabiting	335	16
Married	373	18
Educational achievement¶		
Some high school	116	6
High school graduation	327	16
Some university	677	33
University graduation	614	30
Postgraduate education	319	16

*1% (n = 24) did not provide information regarding sex.
†Less than 1% (n = 19) did not provide an age category.
‡2% of the sample (n = 45) did not enter country information. There were less than 1% of the participants from the following areas: Central America, Oceania (minus Australia), Africa, Caribbean and Bermuda, Ireland, and eastern Europe
§Less than 1% (n = 19) of the data regarding marital status were missing.
¶1% (n = 22) did not provide information regarding their educational level.

Of those who listed their reasons for seeking medical care when first diagnosed with genital herpes, 76% reported having visible herpes lesions such as blisters, ulcers, or sores; 50% reported sensory herpes symptoms such as pain or itching; 9% reported other recurrent dermatological symptoms; and 3% reported other local or systemic symptoms (for example, fever, swollen lymph nodes, discharge, headache, sore throat, malaise or dysuria). Twenty per cent reported seeking care out of fear of or desire to learn about infection and 13% reported fearing they could transmit something to others. Nine per cent were diagnosed while seeking health care for another reason. Six per cent of visits followed advice from a sexual partner and 2% followed advice from others.

Forty nine per cent of respondents were diagnosed by a test for the virus (such as culture or polymerase chain reaction test), 9% by a serological test, 34% by physical examination without laboratory testing, and 5% by history alone.

Respondents most frequently reported diagnosis by primary care physician (39%), obstetrician/gynaecologist (29%), sexually transmitted disease or genitourinary medicine specialist (12%) or nurse 4%. Five per cent of patients identified a place of diagnosis (emergency room, clinic, planned parenthood clinic) rather that a specific practitioner type.

Those who were diagnosed by a specialist (includes obstetrician/gynaecologists) were more likely to have had a laboratory test than those who were diagnosed by a generalist ($\chi^2 = 16.34$, $p<0.01$).

The participants were asked how much time the healthcare provider spent discussing genital herpes with them when they were first diagnosed (table 2); 79% of respondents reported that they had been given 15 minutes or less.

Resources provided at diagnosis

Seventy six per cent of participants answered questions about resources provided to them at diagnosis. While 75% of such respondents received a prescription of some kind for treatment, only a minority of them answered that they had received brochures (38%), fact sheets (31%), directions to websites for disease and management information (11%), referrals for counselling or support (10%), or specialist referral (9%). Specialists were more likely to provide educational materials than were generalists (51% *v* 33%, $p<0.001$). Eighteen per cent of respondents reported using over the counter medication. A large majority of those reporting receipt of the above described materials or being given a referral rated such provision as useful (data not shown).

Perceptions of genital herpes at diagnosis

The participants were asked to rate eight emotions on a five point scale from weakest to strongest. Negative emotions such as hurt/upset, depressed, scared, angry, ashamed, surprised, and confused were experienced by most respondents and elicited scores above 3.5 on the scale. Relief was experienced by 75% of respondents but was rated only 1.5 on the scale. When examining the responses (n = 169) to the ''other'' category, we identified words or concepts not presented in the initial list that at least eight (5% of other responders) included. These were: dirty/unclean (n = 17); suicidal (n = 16); alone/lonely (n = 9); concerned about future sex life (n = 9); and denial (n = 8). There were five individuals who listed positive statements such as ''I was glad it wasn't HIV''; and ''Glad I know what was wrong.''

Participants responding to a question regarding their three major concerns at diagnosis listed concern about an adverse effect on their love or sex life (53%), concern about the availability of a cure (37%), concern about transmission to others (36%), concern about how their infection had been

Table 2 Diagnosis

	No	% of respondents
Reason for seeking care at diagnosis*		
Visible herpes lesions	1192	76
Sensory herpes symptoms	789	50
Other recurrent skin problem	146	9
Other local or systemic symptoms	53	3
Fear or desire to learn if infected	311	20
Fear of transmission to others	207	13
Visited doctor for unrelated reason	135	9
Prompted by sexual partner	93	6
Prompted by advice of others	35	2
Method of diagnosis†		
Direct evidence of the virus	759	49
Blood test	143	9
Physical examination	529	34
History without examination	81	5
Self diagnosis	33	2
Other	17	1
Practitioner type or location‡		
General practitioner	619	39
Obstetrician/gynaecologist	461	29
STD specialist	136	9
Genitourinary medicine physician	54	3
Dermatologist	59	4
Internist	21	1
Other specialist	10	0.6
Nurse	71	4
Physician assistant/nurse practitioner	25	2
Emergency room	52	3
Clinic	14	1
Planned parenthood	11	0.7
Self diagnosis	29	2
Other	18	1
Time with diagnostician§		
Less than 5 minutes	579	37
5–15 minutes	666	42
15–30 minutes	223	14
30–45 minutes	68	4
More than 45 minutes	39	2

*25% (n = 509) of the sample either did not answer this question or reported that they didn't see a physician.
†25% (n = 513) of the data were coded as missing.
‡24% (n = 495) of the participants did not answer this question.
§24% (n = 500) did not answer the question

acquired (31%), and concerns about telling others (26%) (table 3).

Seventy seven per cent of participants responded to a question that asked them to compare their perception of genital herpes at diagnosis with nine other diseases. Most respondents thought that herpes was less serious than HIV (97%, n = 1528), cancer (94%, n = 1483), heart problems (91%, n = 1416), and diabetes (79%, n = 1226) but more serious than the common cold (89%, n = 1397). The sample had less agreement as to whether herpes was more serious than depression (herpes more serious than depression 50%, n = 782), erectile dysfunction (herpes more serious than erectile dysfunction 45%, n = 674), asthma (herpes more serious than asthma 40%, n = 627), and arthritis (herpes more serious than arthritis 40%, n = 626).

Sharing information with others

Seventy seven per cent of the sample answered a question about types of people with whom they had shared their diagnosis. Of those that answered the question, 11% (n = 180) reported that they did not tell anybody. Sixty nine per cent told a partner, 43% friends, 33% family, and 19% a

Table 3 Concerns identified as three most important by patients at diagnosis

Question	No	% of respondents
Does this mean the end of my love/sex life?	838	53
Is there a cure?	593	37
How easily can I give this to someone else?	577	36
How did I get this?	496	31
I can't tell anyone about this!	415	26
Is there treatment?	303	19
How can I reduce the number of outbreaks I have?	296	19
Will I still be able to have children?	266	17
Will I (or my partner) always have to use condoms?	251	16
How much physical discomfort/pain will the next outbreaks cause?	250	16
How long will I have it for?	158	10
What (other) symptoms will I experience?	113	7
How much will treatment cost?	58	4

23% (n = 483) did not respond to this question. Of those that responded (n = 1592), 96% (n = 1521) chose three answers, 4% (n = 57) gave two answers, and <1% (n = 14) gave only one answer.

healthcare provider. Of the people who told someone, 56% told more than one type of person. The participants were asked to rate on a five point scale how easy or difficult it was to tell someone. Seventy two per cent of participants responded, of whom 22% (n = 328) reported that it was easy, 7% (n = 109) reported that it was neither easy nor difficult, and 71% (n = 1065) reported that it was difficult.

Management

Seventy three per cent of participants provided answers around which of a list of possible treatments for genital herpes they had used (table 4). Sixty five per cent of respondents had used prescription antivirals, 18% used topical prescription medicine, and 13% used over the counter topical cream. Seventeen per cent used an alternative/herbal treatment such as lysine, tea tree oil, or herbal bath. Less than 1% used pain medication and 2% used other substances, some of which (red wine, rubbing alcohol) may have adverse effects on symptoms.

Information on pattern of prescription antiviral therapy could be discerned from 901 (43%) questionnaires; 530 responded ''yes'' to a question on whether they had received episodic treatment. A further 371 described their frequency of antiviral use. When these two questions were interpreted together 31% of respondents (n = 274) reported a frequency of use consistent with chronic suppressive therapy; 67% (n = 604) either reported episodic therapy or reported a frequency of use consistent only with episodic therapy. The likelihood of antiviral drug prescription was not significantly different between specialist and generalist.

The participants were asked what keeps them from taking an antiviral every day (suppressive therapy) (table 4). Fifty four per cent (n = 1116) did not answer the question. Cost, insufficient frequency of outbreaks, and lack of knowledge about the availability of suppressive therapy were the most common answers among respondents. Of interest, 18% were concerned about side effects, 14% saw therapy as an unwelcome reminder of the disease, and 11% feared the therapy would decline in efficacy over time if used too frequently.

Seventy three per cent of participants rated, on a three point scale, their likelihood of taking a medicine everyday if it would significantly reduce outbreaks. Fifty nine per cent of respondents (n = 889) would be very likely, 25% (n = 383) somewhat likely, and 16% (n = 237) unlikely to take a medicine everyday.

Patient satisfaction with medical care

The participants were asked to rate on a five point scale how satisfied they were with the answers and attention they received for physical symptoms and treatment and for social/emotional issues. Seventy five per cent of participants responded to each question.

For physical symptoms/treatment, 29% of respondents (n = 445) were somewhat or very satisfied, 21% (n = 322) neither satisfied nor dissatisfied, and 51% (n = 790) somewhat or very dissatisfied.

For social/emotional issues, 16% (n = 258) were somewhat or very satisfied, 21% (n = 328) neither satisfied nor dissatisfied, and 63% (n = 980) somewhat or very dissatisfied. Thirty six per cent (n = 562) of the respondents found their physicians to be somewhat to very sympathetic, 27% (n = 421) neither sympathetic nor unsympathetic, and 38% (n = 594) to be somewhat to very unsympathetic.

Correlates of satisfaction

Bivariate and multivariate correlates of patient satisfaction are summarised in table 5.

When examining satisfaction with attention to physical symptoms, the bivariate analyses indicated that those who had been given a brochure or fact sheet, referred to a website for disease and management information, received a prescription, been diagnosed for less than a year, spent at least 15 minutes with their healthcare provider at diagnosis, and who were female were more likely to be satisfied. There was a non-significant trend for older individuals to be less satisfied

Table 4 Therapy

	No	% of respondents
Treatment used*		
Prescription antiviral	990	65
Prescription topical medicine	274	18
Over the counter topical cream	194	13
Pain medication	12	<1
Alternative/herbal treatment	263	17
Saline baths	154	10
Ice or cold water	74	5
Lifestyle change	16	<1
Other	35	2
Pattern of antiviral therapy†		
Suppressive therapy	274	30
Episodic therapy	604	67
Reasons for not taking suppressive therapy‡		
Infrequent outbreaks or just diagnosed	318	33
Cost	297	31
Didn't know could take every day	203	21
Fear of side effects	173	18
Don't want to be reminded about the disease	135	14
Decreased efficacy	108	11
Inconvenient	97	10
Disease not a concern	78	8
Doctor didn't recommend	59	6
Wouldn't make a difference	53	6
Treatment period would be too long	35	4
Doesn't work	9	<1

*27% (n = 559) of the sample did not answer this question: 545 left the question blank and 14 reported not using medication.
†901 respondents provided information on pattern of antiviral therapy (see text).
‡There remained 6% (n = 55) of others that were not recoded or put in a new category. These included people who do not take medication, were worried about developing dependency.

Table 5 Final models of patient satisfaction

Factor	Satisfied	Unsatisfied or neutral	Adjusted OR (95% CI)	p Value
Satisfaction with attention to physical symptoms and treatment				
Receipt of brochure or fact sheet	269/425 (63%)	375/1053 (36%)	2.14 (1.64 to 2.78)	<0.01
Offered a prescription	369/420 (88%)	723/1035 (70%)	2.34 (1.64 to 3.32)	<0.01
Diagnosed for less than 1 year	181/439 (41%)	367/1087 (34%)	0.72 (0.55 to 0.94)	<0.02
Time spent with physician ⩾15 minutes	192/442 (43%)	132/1104 (12%)	4.52 (3.38 to 6.05)	<0.01
Satisfaction with attention to social and emotional issues				
Offered a prescription	209/244 (86%)	890/1222 (73%)	1.72 (1.14 to 2.60)	<0.01
Time spent with physician ⩾15 minutes	129/256 (50%)	195/1299 (15%)	5.49 (4.02 to 7.51)	<0.01

($p = 0.08$). Being cared for by a specialist was not significantly associated with satisfaction. In the multivariate analysis, those who are satisfied with the answers and attention to their physical symptoms were more likely to have been given a brochure or fact sheet, to have received a prescription, to have been diagnosed for less than a year, and to have spent at least 15 minutes with their healthcare provider at diagnosis.

The results of the bivariate analysis examining satisfaction with answers and attention given to social and emotional issues were similar with the exception that there was no relation between gender or trend for age with satisfaction. In the multivariate analyses, those who were satisfied with the answers and attention given to their social and emotional issues were more likely to have been given a prescription and to have spent more than 15 minutes with the healthcare provider at diagnosis.

United States versus other participants

Comparisons were made between responses of participants from the United States and from other countries. There were no significant differences in proportion seen by a specialist, time spent with care provider, or satisfaction with care between US and non-US respondents. US respondents were more likely to report having their diagnosis confirmed by a laboratory test (63 *v* 48%, $p<0.001$), receiving a prescription (78 *v* 70%, $p = 0.001$), and receiving a chronic suppressive therapy regimen (34 *v* 25%, $p = 0.01$).

DISCUSSION

To date, there have been few published reports of patient experiences with the management of genital herpes. A smaller survey identified a perception that initial visits were too brief and also noted that more than half the patients had no follow up in the first 6 months.[36] Our survey underscored the impact of provider time given at the first visit on patient satisfaction. Our study has also identified a number of issues cogent to the spectrum of genital herpes management.

We found that only 58% of respondents reported that their diagnosis had been confirmed by a laboratory test. While it is possible that some participants were unaware that such a test was performed, it is of concern that some diagnoses may still be made on clinical grounds without confirmation. High false positive and false negative rates are reported for physical examination alone.[37–39]

Patient concerns at diagnosis centred on transmission, treatment, and the impact on love/sex life. Practitioners may wish to anticipate these concerns and address them proactively during an initial visit and subsequent counselling.

Suppressive therapy dosing was reported by only 31% of 901 patients reporting on frequency of antiviral use. This represents 13% of the overall sample. While the survey was not configured to allow evaluation of the appropriateness of prescription in individual patients, it is of interest that 84% of patients said they would be likely to take a medication daily if it reduced their frequency of recurrences. It is not possible to tell if the physicians did not recommend it because their patients did not need it or because of a lack of information about chronic suppressive therapy. Cost was an identified barrier to the use of suppressive therapy that is not easily modifiable by the diagnosing practitioner. However, we also noted a high prevalence of belief that such courses of treatment cause side effects, engender the emergence of resistant virus, or even prove habit forming. These barriers could be addressed by targeted education.

Patient satisfaction with care appears to correlate with the amount of time provided by the healthcare provider at initial diagnosis. Because genital herpes is a chronic/recurrent illness similar to asthma in its ability to unpredictably recur and because social stigma is associated with the diagnosis, it is reasonable that patients would require education and counselling regarding their condition. Physicians can be reassured that much of the gain in satisfaction reported in this study seems to be evident after only 15 minutes so that good management and counselling need not represent a limitless drain on time.

Our analyses also suggest a relation between satisfaction and the issuing of a prescription at diagnosis and with the provision of educational materials such as a brochure. Though specialists were more likely to issue educational materials, specialist care was not independently associated with greater patient satisfaction. We suggest that the appropriateness of therapy should be considered with all new diagnoses and that therapy should be offered to all patients with first episode genital herpes. Similarly, practitioners should routinely provide or refer patients to ancillary sources of information.

This questionnaire has some important limitations. People answering web based surveys may not be representative of all people living with genital herpes. It is plausible that our study may yield higher prescription rates and lower measures of satisfaction than would result from random sampling since overselection of higher socioeconomic strata or of more dissatisfied patients is a risk inherent in our design. In addition, the varying denominator based on completeness of response to specific questions is an issue that must be accounted for in interpretation of this and similar web based studies. Our study did not discern which patients were in a long term relationship with their provider. It is likely that the nature of interaction in follow up visits would also affect satisfaction and other responses above and beyond the content of the original visit.

In conclusion, our findings suggest a few avenues towards improved management for genital herpes. Firstly, practitioners should be reminded that confirmation of the diagnosis with an appropriate diagnostic test is always desirable. Secondly, an investment of 15 minutes in education and counselling at initial patient visit can go a long way to improving long term patient satisfaction with management. Such initial personal attention appears to be enhanced by routine efforts to provide ancillary information by brochure, website referral and other methods. Finally, it

Key messages

- Patient satisfaction with care received for genital herpes correlates positively with time spent with the provider on the first visit
- Provision of educational materials or web addresses that teach more about the diagnosis is also associated with higher levels of patient satisfaction
- Patient satisfaction increases with receiving a prescription on the initial visit
- However, this survey did not assess the appropriateness of prescriptions for individual participants

would seem appropriate to consider the value of the full range of antiviral therapy options when assessing each new genital herpes patient.

ACKNOWLEDGEMENTS

The authors wish to acknowledge Ms Holly Blum (Cohn & Wolfe) and Mr Russell Traynor (International Herpes Management Forum) for survey coordination. We are indebted to Ms Elissa Brown, Ms Jasmine Majkowski, Ms Stephanie Ramos, and Dr Mary Short of the University of Texas Medical Branch for data management and analysis, and to Ms Natalie Gaudun for assistance with manuscript preparation.

CONTRIBUTORS

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This work was supported by a grant in aid from Novartis Pharma.

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